

REMARKS

Applicants appreciate the detailed examination evidenced by the Office Action mailed June 30, 2005 (hereinafter "Office Action"). Applicants have amended Claim 8 to correct an inadvertent typographical error and thereby overcome the objections thereto. Applicants respectfully traverse the rejections of Claims 1-24 for at least the reasons discussed below.

The objection to Claim 8 is overcome

Applicants have amended Claim 8 to replace "respect" with "respective." Applicants submit that this amendment clarifies the nature of the claimed subject matter and, therefore, request that the objection to Claim 8 be withdrawn.

Independent Claims 1 and 13 are patentable over Taimela

Independent Claims 1 and 13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,906,933 to Taimela (hereinafter "Taimela"). The Office Action cites several components of FIG. 5 as corresponding to recitations of Claim 1. In particular, the Office Action alleges: (1) rectifier 510 corresponds to the recited "first bidirectional power converter circuit"; (2) inverter 520 corresponds to the recited "second bidirectional power converter circuit"; and (3) control circuit 540 corresponds to the recited "control circuit configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at each of the first and second load ports." Office Action, p. 3. Applicants respectfully disagree with these assertions for several reasons.

Among other things, there is no teaching or suggestion in Taimela that the inverter 520 is "bidirectional," i.e., supports power transfer therethrough from the DC busses 515a, 515b to the output port 502 *and* from the output port 502 to the DC busses 515a, 515b. In addition, there is no teaching or suggestion in Taimela that the control circuit 540 (or any other circuitry in FIG. 5) is "configured to control the first and second bidirectional power converter circuits such that *each* of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at *each* of the first and second

load ports," e.g., there is no teaching or suggestion that each of the rectifier 510 and the inverter 520 may be selectively operated so that *each* of them may generate and/or condition power at *each* of the first and second outputs 502 and 503. Accordingly, the cited material from Taimela does not disclose or suggest all of the recitations of Claim 1, and for at least these reasons, Applicants submit that Claim 1 is patentable over Taimela. Applicants further submit that Claim 13 is patentable over Taimela for at least similar reasons.

Independent Claims 1 and 13 are patentable over Wade and Johnson

Independent Claims 1 and 13 also stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,605,879 to Wade et al. (hereinafter "Wade") in combination with U.S. Patent No. 6,483,730 to Johnson, Jr. (hereinafter "Johnson"). In particular, the Office Action alleges that Wade discloses all of the recitations of Claim 1, alleging that a rectifier 30 and an inverter 32 shown in FIG. 4 of Wade correspond to the recited "first bidirectional power converter circuit" and "second bidirectional power converter circuit," respectively. The Office Action concedes that Wade does not disclose "utilization of the technique for a control circuit configured to control first and second bidirectional power converter circuits," which Applicants assume is a concession that Wade does not disclose "a control circuit configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at each of the first and second load ports." The Office Action alleges that a microcontroller 552 shown in FIG. 5 of Johnson corresponds to the recited control circuit. Office Action, p. 4. Applicants submit that these allegations are erroneous for several reasons.

There is no teaching or suggestion in Wade that either of the rectifier 30 and the inverter 32 is "bidirectional." In particular, while Wade describes transfer of power from an AC mains 20 or a battery 16 connected to the input of the rectifier 30 to a capacitor bank 28 coupled to a DC bus at the output of the rectifier 30, Wade includes no disclosure or suggestion that power is transferred through the rectifier 30 in the opposite direction. Wade, column 6, lines 48-59. Wade describes the power inverter 32 using DC power stored by the

capacitor bank 28 to generate an AC output voltage supplied to utilization equipment, but fails to disclose or suggest power transfer in the opposite direction.

Johnson also does not provide the teachings alleged in the Office Action. Johnson relates to techniques for coupling a DC source to power converter for UPS application having an on-line topology. In particular, Johnson indicates that the cited microcontroller 552 of FIG. 5 may control transistors Q1-Q6 and switches S1 and S2 responsive to "several operational variables." However, nowhere does Johnson disclose or suggest that the microcontroller "is configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at each of the first and second load ports."

Furthermore, the Office Action fails to provide the required evidence from the prior art of a motivation or suggestion to combine Wade and Johnson in the manner asserted in the Office Action. In particular, the Office Action states that "it would have been obvious . . . to modify Taimela's power supply for the purpose of increasing the efficiency of the power supply." First, this statement erroneously refers to Taimela, not Wade and/or Johnson. Secondly, the Office Action fails to provide any evidence from Wade, Johnson or elsewhere as to how or why modification of any of these references would "increase efficiency."

For at least the foregoing reasons, Applicants submit that Claim 1 is patentable over the cited combination of Wade and Johnson. Applicants further submit that Claim 13 is patentable over the cited combination of Wade and Johnson for at least similar reasons.

The dependent claims are patentable

Applicants submit that dependent Claims 2-12 and 14-24 are patentable at least by virtue of the patentability of the various ones of independent Claims 1 and 13 from which they depend. Applicants further submit that several of the dependent claims are also separately patentable.

For example, Claim 2, which stands rejected as anticipated by Taimela and obvious over the cited combination of Wade and Johnson, recites "wherein the control circuit is configured to control the first and second bidirectional power converter circuits such that

each of the first and second bidirectional power converter circuits is selectively operable to generate AC power at each of the first and second load ports from the auxiliary DC power source." In rejecting Claims 1, 5-12, 14 and 17-24, the Office Action recites a disjointed list of "subject matters" without clear indication as to which recitations of these numerous claims these items allegedly correspond. Accordingly, Applicants are deprived of any opportunity to respond to these rejections, as no logical basis for the rejections is provided. Moreover, as discussed above, Taimela does not show first and second "bidirectional" power converters and, therefore, clearly does not disclose or suggest that "each of the first and second bidirectional power converter circuits is selectively operable to generate AC power at each of the first and second load ports from the auxiliary DC power source." For at least this reason, Applicants submit that Claim 2, and method analog Claim 14, are patentable over Taimela. With respect to the rejections based on Wade and Johnson, the Office Action provides no discussion as to how or where this combination of references discloses or suggests the recitations of Claim 2 or method analog Claim 14.

Applicants assume that the Office Action asserts that Claim 3 is obvious under 35 U.S.C. § 103 over Taimela, but this is unclear from the Office Action, as the rejections are provided under a paragraph heading relating to anticipation, but provide grounds that include an allegation of obviousness. Applicants assume herein that an obviousness rejection was intended. However, the Office Action misstates the recitations of Claim 3, as the claim does not recite "utilize one or two operating mode." Office Action, p. 3. Rather, Claim 3 recites a control circuit operative to provide *at least two* of nine specific operating modes. Nowhere does the Office Action indicate where Taimela or the other art of record discloses or suggests any combination of at least two of the specific operating modes recited in Claim 3. For at least these reasons, Applicants submit that Claim 3, and method analog Claim 15, are separately patentable. Similar reasons support the patentability of Claims 4 and 16.

Claim 9, which stands rejected as anticipated by Taimela, recites "wherein the control circuit is configured to selectively operate the first bidirectional power converter circuit and/or the second bidirectional power converter circuit in a standby or line interactive manner." As noted above, the basis provided for the rejection of Claims 2, 5-12, 14 and 17-24 is incoherent. The only reference to "standby" and "interactive" is a general reference to

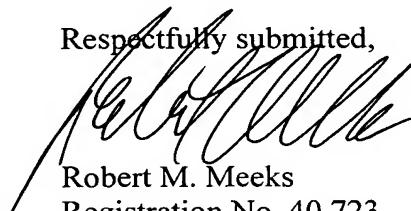
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column 1, lines 10-20 of Taimela. Respectfully, this passage merely states that UPSs can have "standby, line interactive, and on-line topologies." There is nothing in this passage that teaches or suggests a control circuit "configured to selectively operate the first bidirectional power converter circuit and/or the second bidirectional power converter circuit in a standby or line interactive manner." For at least these reasons, Applicants submit that Claim 9 and method analog Claim 21 are separately patentable.

Conclusion

Applicants submit that the objections to and rejections of the claims are overcome for at least the reasons discussed above. Applicants submit that the claims are in condition for allowance and respectfully request allowance of the claims and passing of the application to issue in due course. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any outstanding issues.

Respectfully submitted,

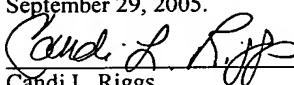


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